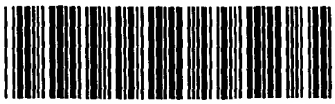

RAW SEQUENCE LISTING DATE: 08/07/2002
PATENT APPLICATION: **US/08/403,803C** TIME: 10:24:18

Input Set : **A:\1747-41426-A-PCT-US.txt**
Output Set: **N:\CRF3\08072002\H403803C.raw**


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 3 <110> APPLICANT: Ron S., Israeli et al.
 5 <120> TITLE OF INVENTION: PROSTATE-SPECIFIC MEMBRANE ANTIGEN
 7 <130> FILE REFERENCE: 1769/41426-A-PCT-US/JPW/MAF/DJK
 9 <140> CURRENT APPLICATION NUMBER: US 08/403,803C
10 <141> CURRENT FILING DATE: 1995-03-17
12 <150> PRIOR APPLICATION NUMBER: PCT/US93/10624
13 <151> PRIOR FILING DATE: 1993-11-05
15 <160> NUMBER OF SEQ ID NOS: 38
17 <170> SOFTWARE: PatentIn version 3.1
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 2653
21 <212> TYPE: DNA
22 <213> ORGANISM: Human
24 <400> SEQUENCE: 1
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27 attggttcag tgcactctag aaacactgct gtggtggaga aactggaccc caggtctgga    120
29 gcgaattcca gcctgcaggg ctgataagcg aggcattagt gagattgaga gagactttac    180
31 cccgccgtgg tggttggagg gcgcgcagta gagcagcagc acaggcgcgg gtcccgggag    240
33 cccggctctg ctcgcgccga gatgtggaat ctccttcacg aaaccgactc ggctgtggcc    300
35 accgcgcgcc gcccgcgctg gctgtgcgct ggggcgctgg tgctggcggg tggcttcttt    360
37 ctcctcggct tcctcttcgg gtggtttata aaatcctcca atgaagctac taacattact    420
39 ccaaagcata atatgaaagc atttttggat gaattgaaag ctgagaacat caagaagttc    480
41 ttatataatt ttacacagat accacattta gcaggaacag aacaaaactt tcagcttgca    540
43 aagcaaattc aatcccagtg gaaagaattt ggcctggatt ctgttgagct agcacattat    600
45 gatgtcctgt tgtcctaccc aaataagact catcccaact acatctcaat aattaatgaa    660
47 gatggaaatg agattttcaa cacatcatta tttgaaccac ctcctccagg atatgaaaat    720
49 gtttcggata ttgtaccacc tttcagtgct ttctctcctc aaggaatgcc agagggcgat    780
51 ctagtgtatg ttaactatgc acgaactgaa gacttcttta aattggaacg ggacatgaaa    840
53 atcaattgct ctgggaaaat tgtaattgcc agatatggga aagttttcag aggaaataag    900
55 gttaaaaatg cccagctggc aggggccaaa ggagtcattc tctactccga ccctgctgac    960
57 tactttgctc ctggggtgaa gtcctatcca gatggttgga atcttcctgg aggtggtgtc   1020
59 cagcgtggaa atatcctaaa tctgaatggt gcaggagacc ctctcacacc aggttaccca   1080
61 gcaaatgaat atgcttatag gcgtggaatt gcagaggctg ttggtcttcc aagtattcct   1140
63 gttcatccaa ttggatacta tgatgcacag aagctcctag aaaaaatggg tggctcagca   1200
65 ccaccagata gcagctggag aggaagtctc aaagtgccct acaatgttgg acctggcttt   1260
67 actggaaact tttctacaca aaaagtcaag atgcacatcc actctaccaa tgaagtgaca   1320
69 agaatttaca atgtgatagg tactctcaga ggagcagtgg aaccagacag atatgtcatt   1380
71 ctgggaggtc accgggactc atgggtgttt ggtggtattg accctcagag tggagcagct   1440
73 gttgttcatg aaattgtgag gagctttgga acactgaaaa aggaagggtg gagacctaga   1500
75 agaacaattt tgtttgcaag ctgggatgca gaagaatttg gtcttcttgg ttctactgag   1560
77 tgggcagagg agaattcaag actccttcaa gagcgtggcg tggcttatat taatgctgac   1620
79 tcatctatag aaggaaacta cactctgaga gttgattgta caccgctgat gtacagcttg   1680
81 gtacacaacc taacaaaaga gctgaaaagc cctgatgaag gctttgaagg caaatctctt   1740
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RAW SEQUENCE LISTING DATE: 08/07/2002
PATENT APPLICATION: US/08/403,803C TIME: 10:24:18

Input Set : A:\1747-41426-A-PCT-US.txt
Output Set: N:\CRF3\08072002\H403803C.raw

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 83 tatgaaagtt ggactaaaaa aagtccttcc ccagagttca gtggcatgcc caggataagc   1800
 85 aaattgggat ctggaaatga ttttgaggtg ttcttccaac gacttggaat tgcttcaggc   1860
 87 agagcacggt atactaaaaa ttgggaaaca aacaaattca gcggctatcc actgtatcac   1920
 89 agtgtctatg aaacatatga gttggtggaa aagttttatg atccaatgtt taaatatcac   1980
 91 ctcactgtgg cccaggttcg aggagggatg gtgtttgagc tagccaattc catagtgctc   2040
 93 ccttttgatt gtcgagatta tgctgtagtt ttaagaaagt atgctgacaa aatctacagt   2100
 95 atttctatga aacatccaca ggaaatgaag acatacagtg tatcatttga ttcacttttt   2160
 97 tctgcagtaa agaattttac agaaattgct tccaagttca gtgagagact ccaggacttt   2220
 99 gacaaaagca acccaatagt attaagaatg atgaatgatc aactcatgtt tctggaaaga   2280
101 gcatttattg atccattagg gttaccagac aggccttttt ataggcatgt catctatgct   2340
103 ccaagcagcc acaacaagta tgcaggggag tcattcccag gaatttatga tgctctgttt   2400
105 gatattgaaa gcaaagtgga cccttccaag gcctggggag aagtgaagag acagatttat   2460
107 gttgcagcct tcacagtgca ggcagctgca gagactttga gtgaagtagc ctaagaggat   2520
109 tctttagaga atccgtattg aatttgtgtg gtatgtcact cagaaagaat cgtaatgggt   2580
111 atattgataa attttaaaat tggtatattt gaaataaagt tgaatattat atataaaaaa   2640
113 aaaaaaaaaa aaa                                                     2653
116 <210> SEQ ID NO: 2
117 <211> LENGTH: 750
118 <212> TYPE: PRT
119 <213> ORGANISM: Human
121 <400> SEQUENCE: 2
123 Met Trp Asn Leu Leu His Glu Thr Asp Ser Ala Val Ala Thr Ala Arg
124 1               5                  10                  15
127 Arg Pro Arg Trp Leu Cys Ala Gly Ala Leu Val Leu Ala Gly Gly Phe
128             20                  25                  30
131 Phe Leu Leu Gly Phe Leu Phe Gly Trp Phe Ile Lys Ser Ser Asn Glu
132         35                  40                  45
135 Ala Thr Asn Ile Thr Pro Lys His Asn Met Lys Ala Phe Leu Asp Glu
136     50                  55                  60
139 Leu Lys Ala Glu Asn Ile Lys Lys Phe Leu Tyr Asn Phe Thr Gln Ile
140 65                  70                  75                  80
143 Pro His Leu Ala Gly Thr Glu Gln Asn Phe Gln Leu Ala Lys Gln Ile
144                 85                  90                  95
147 Gln Ser Gln Trp Lys Glu Phe Gly Leu Asp Ser Val Glu Leu Ala His
148             100                 105                 110
151 Tyr Asp Val Leu Leu Ser Tyr Pro Asn Lys Thr His Pro Asn Tyr Ile
152         115                 120                 125
155 Ser Ile Ile Asn Glu Asp Gly Asn Glu Ile Phe Asn Thr Ser Leu Phe
156     130                 135                 140
159 Glu Pro Pro Pro Pro Gly Tyr Glu Asn Val Ser Asp Ile Val Pro Pro
160 145                 150                 155                 160
163 Phe Ser Ala Phe Ser Pro Gln Gly Met Pro Glu Gly Asp Leu Val Tyr
164                 165                 170                 175
167 Val Asn Tyr Ala Arg Thr Glu Asp Phe Phe Lys Leu Glu Arg Asp Met
168             180                 185                 190
171 Lys Ile Asn Cys Ser Gly Lys Ile Val Ile Ala Arg Tyr Gly Lys Val
172         195                 200                 205
175 Phe Arg Gly Asn Lys Val Lys Asn Ala Gln Leu Ala Gly Ala Lys Gly
176     210                 215                 220
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RAW SEQUENCE LISTING DATE: 08/07/2002
PATENT APPLICATION: US/08/403,803C TIME: 10:24:18

Input Set : A:\1747-41426-A-PCT-US.txt
Output Set: N:\CRF3\08072002\H403803C.raw

```
179 Val Ile Leu Tyr Ser Asp Pro Ala Asp Tyr Phe Ala Pro Gly Val Lys
180 225                 230                 235                 240
183 Ser Tyr Pro Asp Gly Trp Asn Leu Pro Gly Gly Gly Val Gln Arg Gly
184                 245                 250                 255
187 Asn Ile Leu Asn Leu Asn Gly Ala Gly Asp Pro Leu Thr Pro Gly Tyr
188             260                 265                 270
191 Pro Ala Asn Glu Tyr Ala Tyr Arg Arg Gly Ile Ala Glu Ala Val Gly
192         275                 280                 285
195 Leu Pro Ser Ile Pro Val His Pro Ile Gly Tyr Tyr Asp Ala Gln Lys
196     290                 295                 300
199 Leu Leu Glu Lys Met Gly Gly Ser Ala Pro Pro Asp Ser Ser Trp Arg
200 305                 310                 315                 320
203 Gly Ser Leu Lys Val Pro Tyr Asn Val Gly Pro Gly Phe Thr Gly Asn
204                 325                 330                 335
207 Phe Ser Thr Gln Lys Val Lys Met His Ile His Ser Thr Asn Glu Val
208             340                 345                 350
211 Thr Arg Ile Tyr Asn Val Ile Gly Thr Leu Arg Gly Ala Val Glu Pro
212         355                 360                 365
215 Asp Arg Tyr Val Ile Leu Gly Gly His Arg Asp Ser Trp Val Phe Gly
216     370                 375                 380
219 Gly Ile Asp Pro Gln Ser Gly Ala Ala Val Val His Glu Ile Val Arg
220 385                 390                 395                 400
223 Ser Phe Gly Thr Leu Lys Lys Glu Gly Trp Arg Pro Arg Arg Thr Ile
224                 405                 410                 415
227 Leu Phe Ala Ser Trp Asp Ala Glu Glu Phe Gly Leu Leu Gly Ser Thr
228             420                 425                 430
231 Glu Trp Ala Glu Glu Asn Ser Arg Leu Leu Gln Glu Arg Gly Val Ala
232         435                 440                 445
235 Tyr Ile Asn Ala Asp Ser Ser Ile Glu Gly Asn Tyr Thr Leu Arg Val
236     450                 455                 460
239 Asp Cys Thr Pro Leu Met Tyr Ser Leu Val His Asn Leu Thr Lys Glu
240 465                 470                 475                 480
243 Leu Lys Ser Pro Asp Glu Gly Phe Glu Gly Lys Ser Leu Tyr Glu Ser
244                 485                 490                 495
247 Trp Thr Lys Lys Ser Pro Ser Pro Glu Phe Ser Gly Met Pro Arg Ile
248             500                 505                 510
251 Ser Lys Leu Gly Ser Gly Asn Asp Phe Glu Val Phe Phe Gln Arg Leu
252         515                 520                 525
255 Lys Ile Ala Ser Gly Arg Ala Arg Tyr Thr Lys Asn Trp Glu Thr Asn
256     530                 535                 540
259 Lys Phe Ser Gly Tyr Pro Leu Tyr His Ser Val Tyr Glu Thr Tyr Glu
260 545                 550                 555                 560
263 Leu Val Glu Lys Phe Tyr Asp Pro Met Phe Lys Tyr His Leu Thr Val
264                 565                 570                 575
267 Ala Gln Val Arg Gly Gly Met Val Phe Glu Leu Ala Asn Ser Ile Val
268             580                 585                 590
271 Leu Pro Phe Asp Cys Arg Asp Tyr Ala Val Val Leu Arg Lys Tyr Ala
272         595                 600                 605
275 Asp Lys Ile Tyr Ser Ile Ser Met Lys His Pro Gln Glu Met Lys Thr
```

RAW SEQUENCE LISTING DATE: 08/07/2002
PATENT APPLICATION: US/08/403,803C TIME: 10:24:18

Input Set : A:\1747-41426-A-PCT-US.txt
Output Set: N:\CRF3\08072002\H403803C.raw

```
276     610                 615                 620
279 Tyr Ser Val Ser Phe Asp Ser Leu Phe Ser Ala Val Lys Asn Phe Thr
280 625                 630                 635                 640
283 Glu Ile Ala Ser Lys Phe Ser Glu Arg Leu Gln Asp Phe Asp Lys Ser
284                 645                 650                 655
287 Asn Pro Ile Val Leu Arg Met Met Asn Asp Gln Leu Met Phe Leu Glu
288             660                 665                 670
291 Arg Ala Phe Ile Asp Pro Leu Gly Leu Pro Asp Arg Pro Phe Tyr Arg
292         675                 680                 685
295 His Val Ile Tyr Ala Pro Ser Ser His Asn Lys Tyr Ala Gly Glu Ser
296     690                 695                 700
299 Phe Pro Gly Ile Tyr Asp Ala Leu Phe Asp Ile Glu Ser Lys Val Asp
300 705                 710                 715                 720
303 Pro Ser Lys Ala Trp Gly Glu Val Lys Arg Gln Ile Tyr Val Ala Ala
304                 725                 730                 735
307 Phe Thr Val Gln Ala Ala Ala Glu Thr Leu Ser Glu Val Ala
308             740                 745                 750
311 <210> SEQ ID NO: 3
312 <211> LENGTH: 8
313 <212> TYPE: PRT
314 <213> ORGANISM: Human
316 <400> SEQUENCE: 3
318 Ser Leu Tyr Glu Ser Trp Thr Lys
319 1               5
322 <210> SEQ ID NO: 4
323 <211> LENGTH: 15
324 <212> TYPE: PRT
325 <213> ORGANISM: Human
327 <220> FEATURE:
328 <221> NAME/KEY: MISC_FEATURE
329 <222> LOCATION: (6)..(7)
330 <223> OTHER INFORMATION: Xaa=unknown
333 <400> SEQUENCE: 4
W--> 335 Ser Tyr Pro Asp Gly Xaa Xaa Leu Pro Gly Gly Gly Val Gln Arg
336 1               5                   10                  15
339 <210> SEQ ID NO: 5
340 <211> LENGTH: 7
341 <212> TYPE: PRT
342 <213> ORGANISM: Human
344 <400> SEQUENCE: 5
346 Phe Tyr Asp Pro Met Phe Lys
347 1               5
350 <210> SEQ ID NO: 6
351 <211> LENGTH: 9
352 <212> TYPE: PRT
353 <213> ORGANISM: Human
355 <400> SEQUENCE: 6
357 Ile Tyr Asn Val Ile Gly Thr Leu Lys
358 1               5
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RAW SEQUENCE LISTING DATE: 08/07/2002
PATENT APPLICATION: US/08/403,803C TIME: 10:24:18

Input Set : A:\1747-41426-A-PCT-US.txt
Output Set: N:\CRF3\08072002\H403803C.raw

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     361 <210> SEQ ID NO: 7
     362 <211> LENGTH: 22
     363 <212> TYPE: PRT
     364 <213> ORGANISM: Human
     366 <220> FEATURE:
     367 <221> NAME/KEY: MISC_FEATURE
     368 <222> LOCATION: (4)..(5)
     369 <223> OTHER INFORMATION: Xaa=unknown
     372 <400> SEQUENCE: 7
W--> 374 Phe Leu Tyr Xaa Xaa Thr Gln Ile Pro His Leu Ala Gly Thr Glu Gln
     375 1               5                   10                  15
     378 Asn Phe Gln Leu Ala Lys
     379             20
     382 <210> SEQ ID NO: 8
     383 <211> LENGTH: 17
     384 <212> TYPE: PRT
     385 <213> ORGANISM: Human
     387 <400> SEQUENCE: 8
     389 Gly Val Ile Leu Tyr Ser Asp Pro Ala Asp Tyr Phe Ala Pro Asp Val
     390 1               5                   10                  15
     393 Lys
     397 <210> SEQ ID NO: 9
     398 <211> LENGTH: 17
     399 <212> TYPE: PRT
     400 <213> ORGANISM: Human
     402 <400> SEQUENCE: 9
     404 Pro Val Ile Leu Tyr Ser Asp Pro Ala Asp Tyr Phe Ala Pro Gly Val
     405 1               5                   10                  15
     408 Lys
     412 <210> SEQ ID NO: 10
     413 <211> LENGTH: 15
     414 <212> TYPE: PRT
     415 <213> ORGANISM: Human
     417 <400> SEQUENCE: 10
     419 Ala Phe Ile Asp Pro Leu Gly Leu Pro Asp Arg Pro Phe Tyr Arg
     420 1               5                   10                  15
     423 <210> SEQ ID NO: 11
     424 <211> LENGTH: 19
     425 <212> TYPE: PRT
     426 <213> ORGANISM: Human
     428 <400> SEQUENCE: 11
     430 Tyr Ala Gly Glu Ser Phe Pro Gly Ile Tyr Asp Ala Leu Phe Asp Ile
     431 1               5                   10                  15
     434 Glu Ser Lys
     438 <210> SEQ ID NO: 12
     439 <211> LENGTH: 22
     440 <212> TYPE: PRT
     441 <213> ORGANISM: Human
     443 <220> FEATURE:
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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 08/07/2002
PATENT APPLICATION: US/08/403,803C TIME: 10:24:19

Input Set : A:\1747-41426-A-PCT-US.txt
Output Set: N:\CRF3\08072002\H403803C.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:4; Xaa Pos. 6,7
Seq#:7; Xaa Pos. 4,5
Seq#:12; Xaa Pos. 14,15
Seq#:13; N Pos. 12
Seq#:14; N Pos. 6
Seq#:15; N Pos. 12
Seq#:16; N Pos. 6
Seq#:17; N Pos. 3,6
Seq#:18; N Pos. 11,15
Seq#:19; N Pos. 3
Seq#:20; N Pos. 18
Seq#:23; N Pos. 9
Seq#:24; N Pos. 12
Seq#:25; N Pos. 9
Seq#:26; N Pos. 9
Seq#:27; N Pos. 82,83,84,193,196,197,217,218,219,232,233,237,238,253,254
Seq#:27; N Pos. 255,256,263,600,601,721,722,723,724
Seq#:28; N Pos. 224,255,412,413,414,433,520,521,536,537,538,539,540,541,542
Seq#:28; N Pos. 543
Seq#:29; N Pos. 214,377